

2025-07-04 14:55:40

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GGACAAGTCATCTGGGATCCACTACGGGGTTATCACCTGTGAGGGGTGCAAGGGCTTCTTCCGCCGCAGC
CAGCAGTGTAATGTGGCCTACTCCTGCACGCGTCAGCAGAACTGCCCCATTGACCGAACCAGCCGCAACC
GATGCCAGCATTGCCGCTGCAGAAGTGCCTGGCTCTGGGCATGTCCCGAGATGCTGTCAAGTTTGGCCG
AATGTCCAAGAAGCAGAGGGACAGTCTACATGCAGAAGTGCAGAAACAACCTGCAACAGCAGCAGCAACAG
GAACAAGTGGCCAAGACTCCTCCAGCTGGGAGCCGCGGAGCAGACACACTTACATACACTTTAGGGCTCT
CAGATGGGCAGCTACCACTGGGCGCCTCACCTGACCTACCCGAGGCCTCTGCTTGTCCCCCTGGCCTCCT
GAGAGCCTCAGGCTCTGGCCCCACCATATTCCAATACCTTGGCCAAAACAGAGGTCCAGGGGGCCTCCTGC
CACCTTGAGTATAGTCCAGAACGAGGCAAAGCTGAAGGCAGAGACAGCATCTATAGCACTGACGGCCAAC
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GAGTACCTGGTACAGAATGTCTGCAAGTCCTTCCGAGAGACATGCCAGCTGCGACTGGAGGACCTTCTAC
GGCAGCGCACCAACCTCTTTTACGGGAGGAGGTGACCAGCTACCAGAGGAAGTCAATGTGGGAGATGTG
GGAGCGCTGTGCCACCACCTCACTGAGGCCATTCACTATGTGGTGGAGTTTGCCAAGCGGCTTTAGGC
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GAATGTGCAGGGCCTACAATGCCAACAACCACACAGTCTTTTTTGAAGGCAAATACGGTGGTGTGGAGCT
GTTTTCGAGCCTTGGGCTGCAGCGAGCTCATCAGCTCCATATTTGACTTTTCCCACTTCTCAGCGCCCTG
TGTTTTTCTGAGGATGAGATTGCCCTCTACACGGCCCTGGTTCTCATCAATGCCAACCGTCCTGGGCTCC
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GAAAAGCTGCAGATCTTCCAGCACCTCCACCCCATCGTGGTCCAAGCCGCTTCCCNCCACTCTATAAGG
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TAAATCCAGGTACCTGGGATAAGGAGAACTCAAATCTAGGCTTGAAAGCTAATAACAGTCCTTTCAATAC
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MDRAPQRHRTSRELLAAKKTHTSQIEVIPCKICGDKSSGIHYGVITCEGCKGFFRRSQQC
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LQQQQQQEQVAKTPPAGSRGADTLTYTLGLSDGQLPLGASPDLPASACPPGLLRASGSGPP
YSNTLAKTEVQGASCHLEYSRPERGKAEGRDSIYSTDGQLTLGRCLRFEETRHPPELGEPEQG
PDSHCIPSFCSAPEVPYASLTDIEYLVQNVCKSFRETQQLRLEDLLRQRTNLSREEVTSYQR
KSMWEMWERCAHHLTEAIQYVVEFAKRLSGFMELCQNDQIILLTAGAMEVVLVRMCRA
NANNHTVFFEGKYGGVELFRALGCSELISIFDFSHFLSALCFSEDEIALYALVLINANRPL
QEKRRVEHLQYNLELAFHHHLCKTHRQGLLAKLPKGLRSLCSQHVEKLQIFQHLHPIV
QAAFPPLYKELFSTDVESPEGLSK (SEQ ID NO:2)

FIGURE 1

underlined = deleted in targeting construct

[] = sequence flanking Neo insert in targeting construct

GGAGGGCAGCAAGGACGGCACCAAGGGAGCTACCCCATGGACAGGGCCCCACAGAGACAC
 CACCGGACATCTCGGGAGCTGCTGGCTGCAAAGAAGACCCACACCTCACAAATTGAAGTG
 ATCCCTTGCAAGATCTGTGGGACAAGTCATCTGGGATCCACTACGGGGTTATCACCTGT
 GAGGGGTGCAAG [GGCTTCTTCCGCCGAGCCAGCAGTGTAATGTGGCCTACTCCTGCACG
 CGTCAGCAGAA] CTGCCCCATTGACCGAACCAGCCGCAACCGATGCCAGCATTGCCGCCTG
CAGAAGTGCCTGGCTCTGGGCATGTCCCGAGATGCTGTCAAGTTTGGCCGAATGTCCAAG
AAGCAGAGGGACAGTCTACATGCAGAAGTGCAGAAACAACCTGCAACAGCAGCAGCAACAG
GAACAAGTGGCCAAGACTCCTCCAGCTGGGAGCCGCGGAGCAGACACACTTA [CATACT
 TTAGGGCTCTCAGATGGGCAGCTACCACTGGGCGCCTCACCTGACCTACCCGAGGCCTCT
 GCTTGTCCTCCCTGGCCTCCTGAGAGCCTCAGGCTCTGGCCCACCATATTCCAATACCTTG
 GCCAAAACAGAGGTCCAGGGGGCCTCCTGCCACCTTGAGTATAGTCCAGAACGAGGCAAA
 GCTGAAGGCAGAGACAGCATCTATAGCACTGACGGCCAACCTTACTCTTGGAAGATGTGGA
 CTTTCGTTTTGAGGAAACCAGGCATCCTGAACTTGGGGAACCAGAACAGGGTCCAGACAGC
 CACTGCATTCCCAGTTTTCTGCAGTGCCCCAGAGGTACCATATGCCTCTCTGACAGACATA
 G] AGTACCTGGTACAGAATGTCTGCAAGTCTTCCGAGAGACATGCCAGCTGCGACTGGAG
 GACCTTCTACGGCAGCGCACCAACCTCTTTTCACGGGAGGAGGTGACCAGCTACCAGAGG
 AAGTCAATGTGGGAGATGTGGGAGCGCTGTGCCACCACCTCACTGAGGCCATTCACTAT
 GTGGTGGAGTTTGCCAAGCGGCTTTTCAGGCTTCATGGAGCTCTGCCAGAATGACCAGATC
 ATACTACTGACAGCAGGAGCAATGGAAGTCGTCCTAGTCAGAATGTGCAGGGCCTACAAT
 GCCAACAACCACACAGTCTTTTTTTGAAGGCAAATACGGTGGTGTGGAGCTGTTTCGAGCC
 TTGGGCTGCAGCGAGCTCATCAGCTCCATATTTGACTTTTCCCACTTCTCAGCGCCCTG
 TGTTTTTCTGAGGATGAGATTGCCCTCTACACGGCCCTGGTTCTCATCAATGCCAACCGT
 CCTGGGCTCCAAGAGAAGAGGAGAGTGGAAACATCTGCAATACAATTTGGAAGTGGCTTTC
 CATCATCATCTCTGCAAGACTCATCGACAAGGCCTCCTAGCCAAGCTGCCACCCAAAGGA
 AAATCCCGAGCCTGTGCAGCCAACATGTGGAAGCTGCAGATCTTCCAGCACCTCCAC
 CCCATCGTGGTCCAAGCCGCCTTCCCNCCACTCTATAAGGAACTCTTCAGCACTGATGTT
 GAATCCCCTGAGGGGCTGTCAAAGTGATCTGGAGGAAGGACAACTTTCTATTTCTTTCAG
 CCTCTGACCCGTCTCCCTGGACTCCCTTCACCCAGCCTTTCCCTTTCTGCACTCTATGA
 AGGGTGGTATCCCTAGGAGTAAGCAAATCCTAAGACTGATTTTCTGCCCCTAGGCTTGCC
 TTGTAGGACAACAGCAGCAAGTGATGGAGAAAAGGCTTGTTATGTTTGATTTCCTATAAG
 TTCCACCCTGGCTTCTGGAAGCTGTGGGGTAGATGGGATAGAGATAGGATGACCAAGTCA
 AATAAAAAACAGACTGACAATCAGCAGGGATAAATCCAGGTACCTGGGATAAGGAGAAGT
 CAAATCTAGGCTTGAAAGCTAATAACAGTCCTTTCAATACCTCATTTGTATTTCCCATGG
 GTCCTCCTGGGGGACATGGATCTAGCTCAGAGACTGGTGGCAAGCCCCCAGAAGGACCT
 GTATATAATAAGAATATAGATTCTG (SEQ ID NO:1)

FIGURE 2A

Gene Sequence
Structure *

252 bp

Sequence Deleted

472 bp

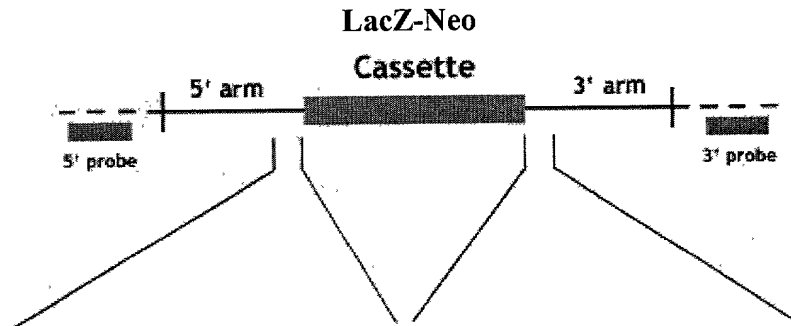
Size of full-length
cDNA: 2066 bpTargeting Vector*
(genomic sequence)

Construct Number: 651

Arm Length:

5': 1.6 kb

3': 2.5 kb



5'>CAGGGTCCATCACAATTATAC
AGTGGAGGTTTCGGGGACTTTGGTG
GATGTAGAAATTCTTGAGACCAGT
GCACATGAATTGGAGGTCCCTGGG
ACCACCTCAAACCTCCGAGAGGGTG
GGATAAGCAGTTTCTGTTTCCCAG
GGCTTCTTCCGCCGAGCCAGCAG
TGTAATGTGGCCTACTCCTGCACG
CGTCAGCAGAA<3'
(SEQ ID NO:3)

5'>CATACACTTTAGGGCTCTCAG
ATGGGCAGCTACCACTGGGCGCCT
CACCTGACCTACCCGAGGCCTCTG
CTTGTCCTCCCTGGCCTCCTGAGAG
CCTCAGGCTCTGGCCCACCATATT
CCAATACCTTGGCCAAAACAGAGG
TCCAGGGGGCCTCCTGCCACCTTG
AGTATAGTCCAGAACGAGGCAAAG
CTGAAGGCAGA<3'
(SEQ ID NO:4)

— Targeting Vector
- - - Endogenous Locus

* Not drawn to scale

FIGURE 2B

necropsy - spleen weight/body weight

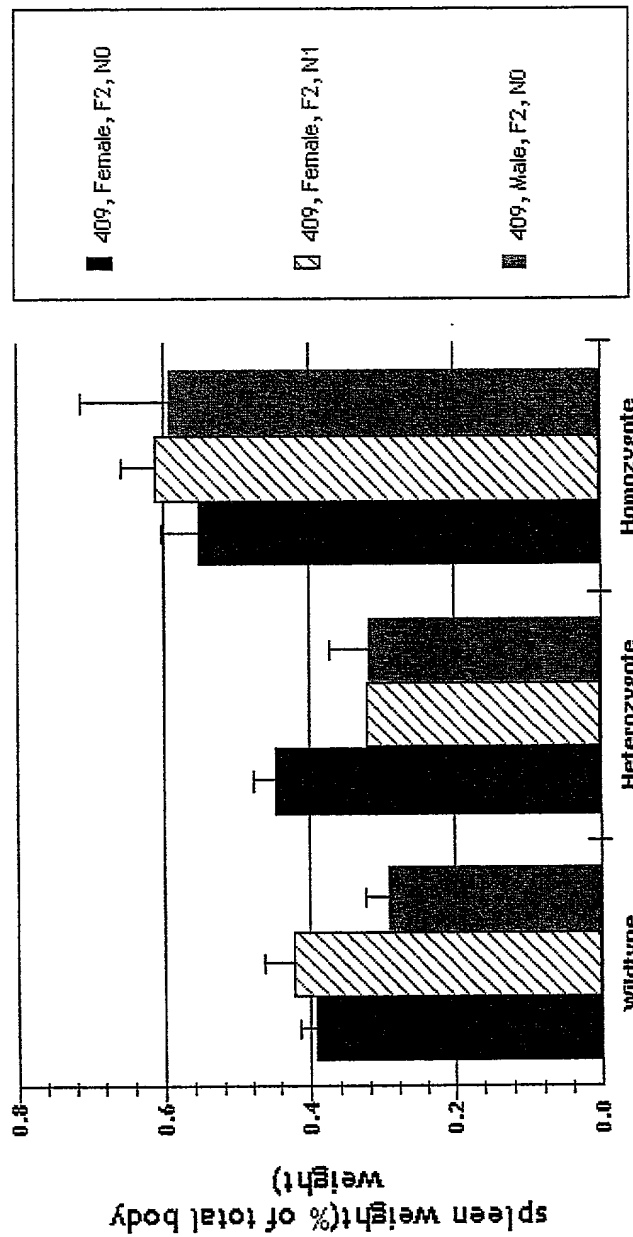


FIG. 3

necropsy - liver weight/body weight

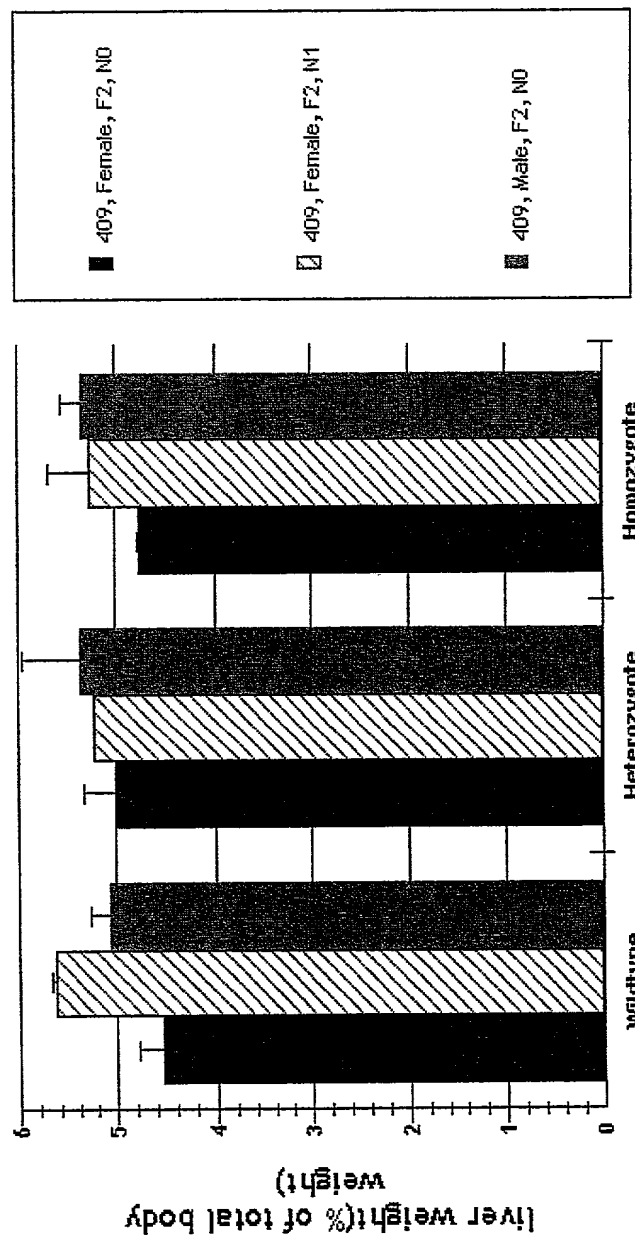


FIG. 4

necropsy - kidney weight/body weight

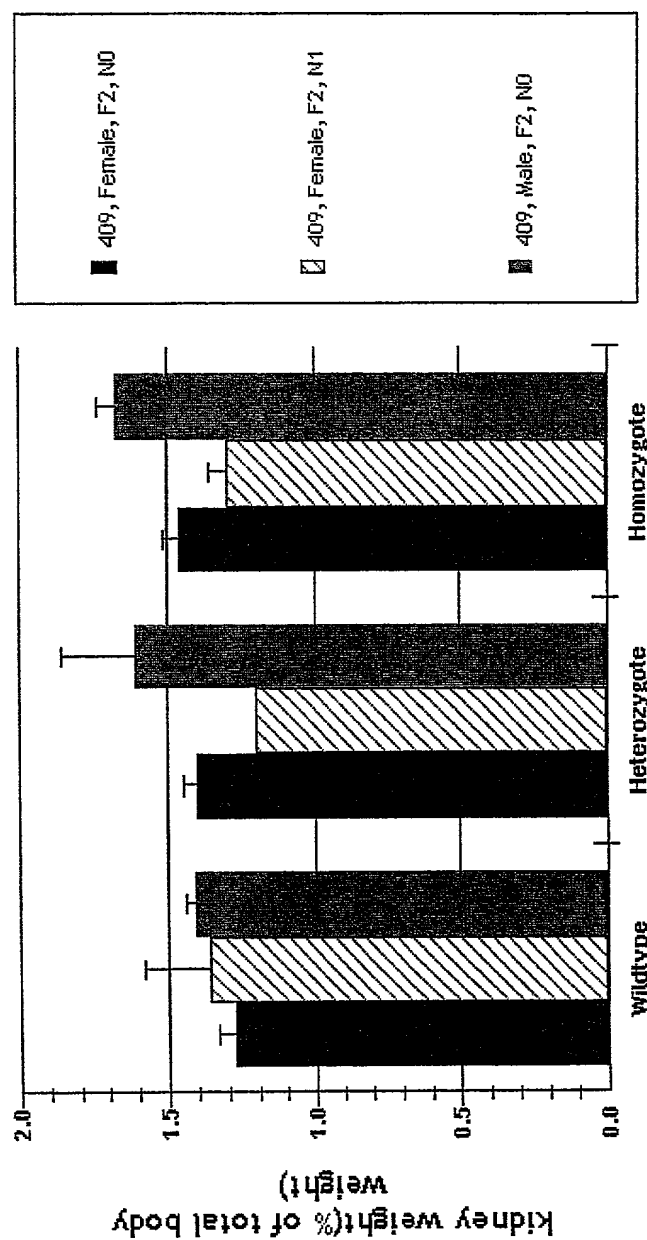


FIG. 5

necropsy - thymus weight/body weight

